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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,227	05/29/2001	Thomas Z. Fu	IP 6037	5926
23566	7590	12/05/2003	EXAMINER	
OSTRAGER CHONG & FLAHERTY LLP			DICUS, TAMRA	
825 THIRD AVE			ART UNIT	
30TH FLOOR			PAPER NUMBER	
NEW YORK, NY 10022-7519			1774	

DATE MAILED: 12/05/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/867,227

Applicant(s)

FU ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6-9-03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 15-24 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 15-24 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Response to Amendment*

The Examiner acknowledges cancellation of claims 7-14 and 25-33. The 112 rejections are withdrawn. The 102 rejections are withdrawn due to Applicant's amendment.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 15-24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,605,750 to Romano in view of USPN 6,132,849 to Gagnon and USPN 6,379,780 to Laney et al., as set forth in previous office action.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1, 15, and 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Any negative limitation or exclusionary proviso must have basis in the original disclosure. The original disclosure does not contain any mention of a filler, nor that it is does not include or does not comprise filler particles as recited in amended claims 1, 15, and 34. These new limitations do not have basis in the original disclosure.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 3-5 (amended) are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,707,722 to Iqbal et al.

7. Iqbal teaches ink-jet recording sheets that comprise a film substrate having two major surfaces, at least one major surface having coated thereon a composition comprising from about 0.05% to about 6% of at least one nonionic fluorocarbon surfactant (instant claims 3 and 4) having a hydrophilic portion and a hydrophobic portion, and from about to about 94% of at least one polymer selected from the group consisting of hydroxycellulose and substituted hydroxycellulose polymers, and at least one phase separation additive, said composition having been crosslinked on said substrate by means of heating. See col. 6, lines 18-68 and col. 10. See

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patented claim 3 for specific organic fluorochemical as instant claim 4 requires. The hydrophilic and hydrophobic polymers are blended. See col. 9, lines 15-30, lines 46-55, line 63-col. 10, line 15. See patented claim 6 teaching polypropylene as required by instant claim 5. See Examples 1-4. See col. 7, lines 6-15 providing the advantages of microporous substrates and ink-receptive media.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,707,722 to Iqbal et al. in view of USPN 5,605,750 to Romano et al.

10. Iqbal is relied upon above. Iqbal does not disclose a thickness between 1 and 3 mils as required by instant claim 2. Romano teaches a microporous ink-jet recording element. The microporous element of Romano includes a thickness from 1-18 mils, falling within Applicant's claimed range (col. 3, lines 18-25). It would have been obvious to one of ordinary skill in the art to include a microporous thickness between 1 and 3 mils because Romano teaches this is a conventional range to have, providing the capability of absorbing ink sufficiently as taught by Romano at col. 3, lines 18-25.

11. Iqbal teaches affixing coating layers by various techniques listed at col. 11, lines 35-45 and col. 12, lines 35, but does not teach the layers as 'laminated' as per instant claim 6.

However, Romano provides the similar microporous material as Iqbal, and consequently

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Applicants, where a substrate is laminated to a microporous film as instant claim 6 requires.

Romano teaches this is possible to do by various conventional techniques as disclosed at col. 13, lines 29-68. It would have been obvious to one of ordinary skill in the art to modify the ink jet sheet of Iqbal to further include a substrate laminated to a microporous film because Romano teaches it is conventional to do so for extra support as taught by Romano at col. 13, lines 29-68.

***Response to Arguments***

12. Applicant's arguments filed 6-9-03 have been fully considered but they are not persuasive. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Applicant alleges Romano teaches using PVA and that there is no reason for combining Gagnon to teach using PVA since Romano already teaches it. The Examiner notes this. However, Gagnon is still relied upon to teach the crosslinking additive that Romano does not provide. Both involve the same microporous print media, thereby providing motivation to combine.

13. Applicant alleges Laney was used to teach forming voids by adding particles of inorganic filler such as silica and alumina (instantly claimed in 16 and 17). Applicant further alleges that since the amended claim now excludes inorganic fillers, reasoning for using Laney does not apply anymore. Well, the Applicant claims a microparticle coating having inorganic particles. The Examiner used Laney to provide the colloidal inorganic particles of silica for a microparticle coating as required by instant claim 15 and as previously set forth (see Laney col. 4, lines 24-32, col. 7, lines 1-5, and col. 10, lines 19-24). The Laney particles are used in the top ink receiving permeable layer to improve ink absorbency. The Applicant has not provided persuasive arguments.

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***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-8329.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus  
Examiner  
Art Unit 1774

November 28, 2003

CYNTHIA M. KELLY  
SUPERVISOR  
TECHNICAL STAFF

*Cynthia Kelly*